

Date: Monday, 6/5/2006 7:41:32 AM
 User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: COVER ASSEMBLY, LH
Job Number	: 27349		
Estimate Number	: 10401		
P.O. Number	: N/A	Part Number	: D3163041
This Issue	: 6/5/2006 S.O. No. : N/A	Drawing Number	: D3163 REV 0
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: N/A Type : LARGE FAB ASSY	Drawing Revision	: 06.06.05
Previous Run	: 25625	Material	: N/A
Written By	: <i>SRAD (COMMON) Bekw</i>	Due Date	: 6/30/2006
Checked & Approved By	: <i>FF 06.06.05 W</i>	Qty:	2/ Um: Each
Comment	: Est. A05.10.25 New issue KJ/RF		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D31631	Plate
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Plate

Pick:

Qty	Part Number	Description	Batch
1	D3163-1	Plate	B27381

FF 06.06.12

2

2.0	D31633	Plate
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Plate

Pick:

Qty	Part Number	Description	Batch
1	D3163-3	Plate	B27382

A/R N/A Sikaflex 241/291 17/01/93

Expiry Date: 11-2006

Bond D3163-3 to D3163-1 using Sikaflex.

Ensure holes line up

N/A

FF 06.06.12

2

3.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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Comment: SMALL & MEDIUM FAB RESOURCE 1

Bond D3163-3 to D3163-1 using Sikaflex. Ensure holes line up

FF 06.06.12

2

4.0	QOS	INSPECT WORK TO CURRENT STEP
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Comment: INSPECT WORK TO CURRENT STEP

Inspect bonding of D3163-1/-3

N/A

FF 06.06.14 (2)

W

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

Date: Monday, 6/5/2006 7:41:32 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: COVER ASSEMBLY, LH

Job Number: 27349

Part Number: D3163041

Job Number:



Seq. #:

Machine Or Operation:

Description:

5.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

a.m. 06/07/18
DL 06/06/21

(2) (2)

PTO

6.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

MA 06 07 18

(2)

7.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

C'sink D3163-3 as per Dwg D3163.

Touch up c'sink holes with alodine.

FF 06.07.06

2

8.0

MS20426AD3-4

RIVET



Comment: Qty.: 2.0000 Each(s)/Unit Total: 8.0000 Each(s)

RIVET

Pick:

Qty

Part Number

Description

Batch

2

MS20426AD3-4

Rivet

M14179

FF 06.08.09

2

PTO

9.0

MS21059L08

Nut



Comment: Qty.: 1.0000 Each(s)/Unit Total: 4.0000 Each(s)

Nut

Pick:

Qty

Part Number

Description

Batch

1

MS21059L08

Nut Plate

M12706

Assemble nut plate as per Dwg D3163-3

Identify as D3163-041

FF 06.08.09

2

10.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

06-08-11

2

9.1 Pick 4 ~~MS20426AD3-4~~ RIVET

MS20426AD4-4 RIVET

ACCEPTABLE DEVIATION

Batch: ~~M14099~~

M1021

FF 06.08.09

06.08.08

2

PTO

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg. / Design Mgr	Approval QC Inspector
06-08-08	8	-5 rivet required for ass'y. Permanent change	PH 06.08.08 per 255 042	→	2	PH 06.08.08 per 255 042	06-08-08

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			
06-07-05	5.0	Sikaflex melted in the oven causing the 2 plates to shift, and the holes to mis align.	PH 06-07-05	Re-work parts to the new drawing D3163 Rev. D. Starting at step 5. Remove sikaflex and Alodine (as per QSI 005 4.1) as necessary.	FF 06.07.10	06-08-11	PH 06-07-05	06-07-05
06-0	9.1	hole size too large → .128 human error	PH 06-08-16	See step for use of larger rivet. Acceptable this time only. Verify bit size before using.	FF 06.08.09	06-08-11	PH 06-08-16	06-08-11

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☐ No ☒ DQA: ☒ Date: 06/09/16

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

Date: Monday, 6/5/2006 7:41:32 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: COVER ASSEMBLY , LH

Job Number: 27349

Part Number: D3163041

Job Number:



Seq. #:

Machine Or Operation:

Description :

11.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify top assembly on the back side of assembly with Dart P/N and B/N using fine point permanent ink marker and Stock

Location: *ST132*

DB 06/08/14

②

12.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

DB 06/08/16

②

Job Completion



U 06-08-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector



NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

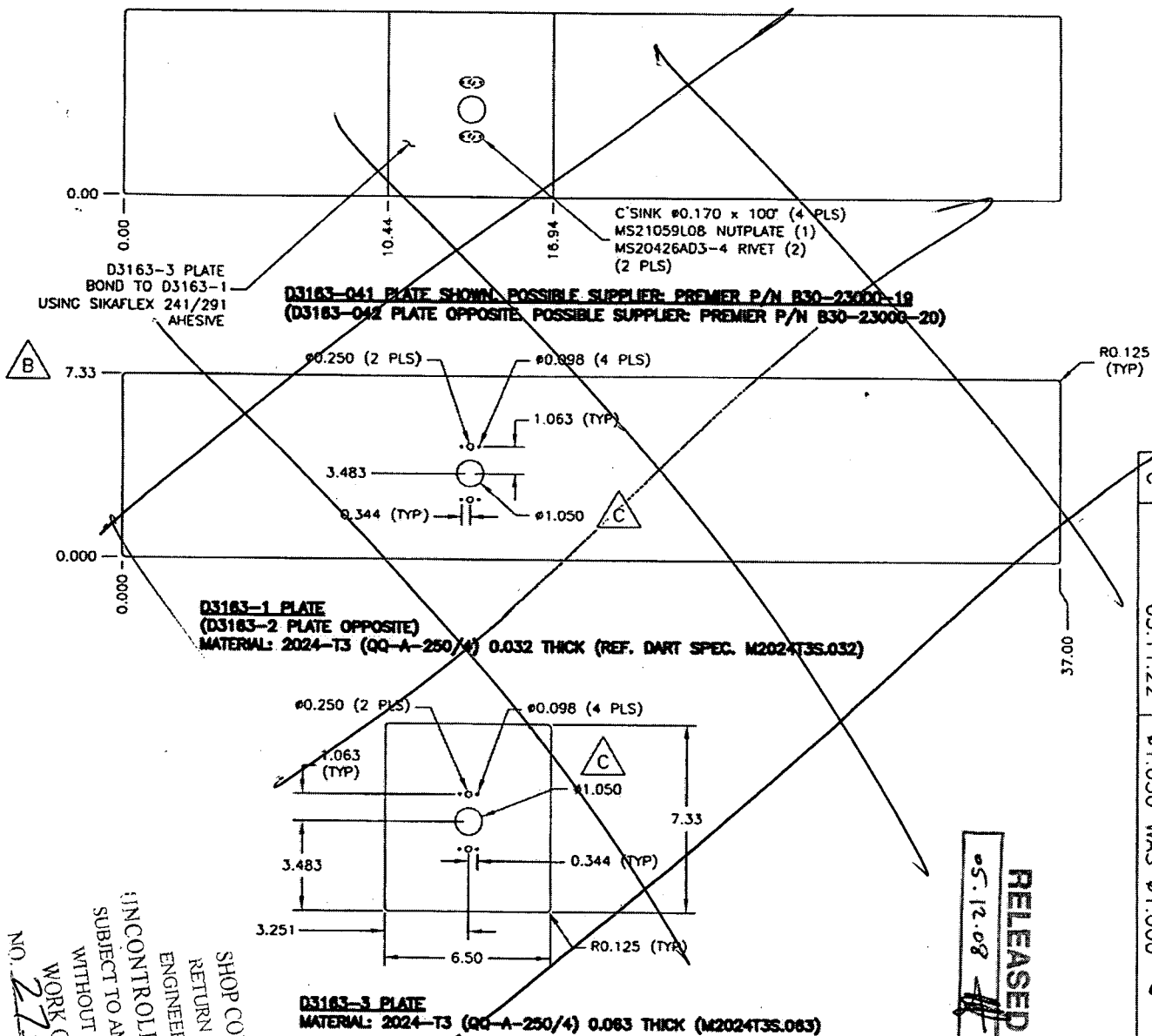
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DESIGN	DRAWN BY			DART AEROSPACE LTD	
RF	RF			HAMKESBURY, ONTARIO, CANADA	
CHECKED		APPROVED		DRAWING NO.	REV. C
				D3163	SHEET 1 OF 1
DATE				TITLE	SCALE
05.11.22				PLATE	1:6
A	02.04.26			NEW ISSUE	
B	04.10.06			7.35 WAS 7:20 REMOVE PERIMETER HOLES	
C	05.11.22			Ø1.050 WAS Ø1.000	



RELEASED
05.12.08

GENERAL NOTES:

- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT GREY SANDTEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- 2) BREAK SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) IDENTIFY TOP ASSEMBLY WITH DART P/N & B/N USING FINE POINT PERMANENT INK MARKER

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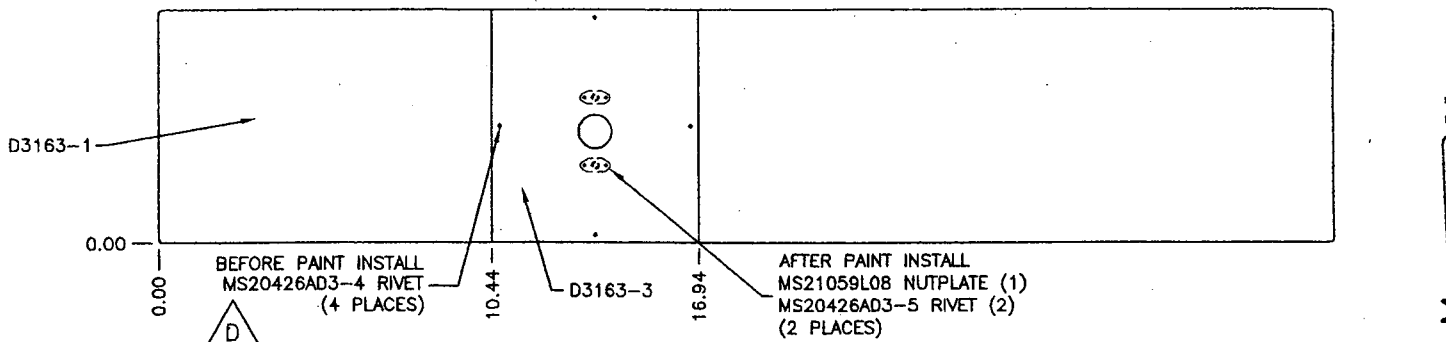
WORK ORDER
NO. 27349

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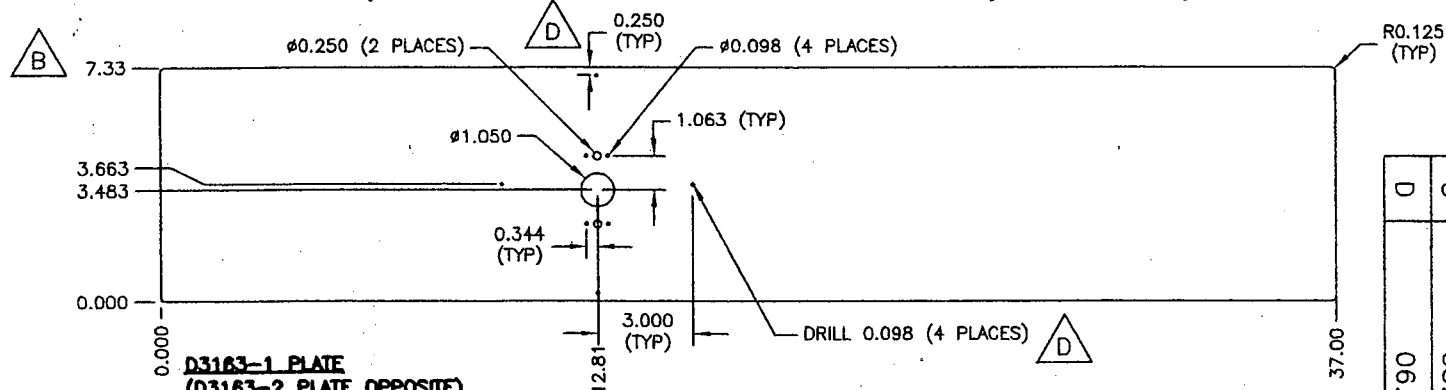
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DECLASSIFIED
DATE 06-29-77

DESIGN	RF	DRAWN BY	CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		REV. D
CHECKED	<i>EH</i>	APPROVED	<i>[Signature]</i>	DRAWING NO.	D3163	SHEET 1 OF 1
DATE	06.06.26			TITLE	PLATE	
A		02.04.26		NEW ISSUE		
B		04.10.06		7.33 WAS 7.20; REMOVE PERIMETER HOLES		
C		05.11.22		Ø1.050 WAS Ø1.000		
D		06.06.26		ADD 4 RIVETS; REMOVE ADHESIVE		



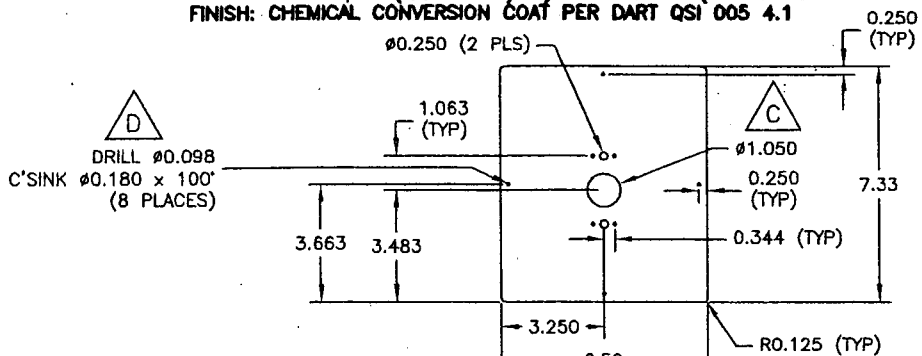
D3163-041 PLATE SHOWN. POSSIBLE SUPPLIER: PREMIER P/N B30-23000-19
(D3163-042 PLATE OPPOSITE. POSSIBLE SUPPLIER: PREMIER P/N B30-23000-20)



D3163-1 PLATE
(D3163-2 PLATE OPPOSITE)

MATERIAL: 2024-T3 (QQ-A-250/4) 0.032 THICK (REF. DART SPEC. M2024T3S.032) OR
6061-T8 (QQ-A-250/11) 0.032 THICK (REF. DART SPEC. M6061T8S.032)
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 0.250

FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1



D31B3-3 PLATE

MATERIAL: 2024-T3 (QQ-A-250/4) 0.063 THICK (M2024T3S.063) OR
6061-T6 (QQ-A-250/11) 0.063 THICK (REF. DART SPEC. M6061T6S.063)
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

GENERAL NOTES:

- 1) FINISH: POWDER COAT GREY SANDETEX (REF. 4.3.5.6) PER DART QSI 005 4.3 AFTER ASSEMBLY OF D3163-3 PLATE BUT BEFORE INSTALLATION OF MS21059L08 NUTPLATES
- 2) BREAK SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) IDENTIFY TOP ASSEMBLY WITH DART P/N & B/N USING FINE POINT PERMANENT INK MARKER

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